

**Amendments to the drawings:**

The attached sheets of drawings include changes to Figures 4 and 5. The sheet of drawings with changes to Figure 4 replaces the original sheet including Figure 4. In Figure 4, previously omitted elements 180, 182, 184, and 186 have been added. The sheet of drawings with changes to Figure 5 replaces the original sheet including Figure 5. In Figure 5, previously omitted elements 200, 202, 204, 206, 208, 210, 212, 214, and 216 have been added.

Attachments:    Replacement Sheets  
                     Annotated Sheets Showing Changes

**Remarks**

Claims 11-12, 14-18 and 23-25 are canceled, and new claims 29-37 are presented. No new matter is believed added thereby. Claims 1-10, 13, 19-22, and 26-37 are pending. No additional claims fees are believed to be due.

Amendments to the title and specification are made.

The Examiner objected to the drawings in three respects. First, Figure 2 was objected to since the specification did not reference block 112. Applicant amends paragraph 25 of the pending application to reference block 112. Second, Figure 4 was objected to as failing to include elements 180, 182, 184, and 186 referenced in paragraph [0040]. Amended Figure 4 is enclosed to overcome the objection. Third, Figure 5 was objected to as failing to include elements 200, 202, 204, 206, 208, 210, 212, 214, and 216 referenced in paragraph [0041]. Amended Figure 5 is enclosed to overcome the objection. No new matter is added by these amendments.

Claims 1 and 14 were objected to as beginning as “Method” instead of “A method.” Applicant amends claim 1 as appropriate to overcome the objection. Applicant further cancels claim 14 without prejudice.

The abstract was objected to as containing too many words. Applicant amends the abstract as believed appropriate.

Claim 13 was rejected under 35 U.S.C. §112, second paragraph as reciting “the group” without sufficient antecedent basis. Applicant believes that the term “the group” is acceptable given that it is a markush-type claim. See MPEP §803.02. Therefore, Applicant believes that the claim as currently presented complies 35 U.S.C. §112, second paragraph.

Claims 14-18 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 7,269,578 (hereinafter “Sweeney Patent”). Claims 1-8, 10-11, 19-23, 25, and

27-28 were rejected under 35 U.S.C. §103(a) as being unpatentable over Sweeney in view of “Replacing Personally-Identifying Information in Medical Records, the Scrub System” by Sweeney (hereinafter “Scrub System”). Claims 9 and 26 were rejected under 35 U.S.C. §103(a) as being unpatentable over Sweeney in view of the Scrub System and U.S. Application No. 09/866,464 (hereinafter “Qamar Application”). Claim 12 was rejected under 35 U.S.C. §103(a) as being unpatentable over Sweeney in view of the Scrub System and U.S. Patent No. 7,032,821 (hereinafter “McClure Patent”). Claim 13 was rejected under 35 U.S.C. §103(a) as being unpatentable over Sweeney in view of the Scrub System and “HIPAA Privacy Rule and Public Health” from CDC Website (hereinafter “HIPAA Privacy Rule”). Claim 24 was rejected under 35 U.S.C. §103(a) as being unpatentable over Sweeney in view of the Scrub System and U.S. Patent No. 6,961,849 (hereinafter “Davis Patent”).

Claim 1 recites a method for checking for patient information in a data stream in a medical records system that includes “modifying the portion of data if it comprises patient information so that the modified portion of the data is independent of the patient information”. The Sweeney patent and Scrub system, used to reject claim 1, do not teach or suggest this limitation.

The Sweeney patent teaches “deidentifying (or anonymizing) entries in a data source.” Col. 5, lines 21-32. Specifically, the Sweeney patent teaches a system “that maintains anonymity in entity-specific data by automatically generalizing, substituting and removing information as appropriate without losing many of the details found, for example, within the data.” Col. 5, lines 33-37. Thus, the Sweeney patent teaches that the “entity-specific data” is replaced with data that is based on the “entity-specific data” in order to avoid losing the details in the “entity-specific data.” To accomplish this, the Sweeney patent discloses a deidentification module 16 to replace the “entity-specific data,” such as by one-way hashing the “entity-specific data.” Col. 6, lines 39-41; see also col. 6, lines 42-62 (entity specific data is replaced with “less specific versions of values for the attribute until eventually the desired anonymity level is attained”).

Similarly, the Scrub system replaces the “entity-specific data” with data that is dependent on the “entity-specific data.” For example, the Scrub system teaches that “[i]f the detected entity was a date, for example, the replacement data may involve lumping days to the first of the nearest month or some other grouping.” Page 4, Replacement Strategies. As another example, “if the detected entity was a first name, the typical strategy is to perform a hash-table lookup using the original name as the key.” Page 4, Replacement Strategies. The Scrub system reasons that replacement data that is dependent on the “entity-specific data” has benefits – namely “[t]his provides consistent replacements since every time a particular name is encountered, it maps to the same replacement.” Page 4, Replacement Strategies.

In contrast to the Sweeney patent and the Scrub system, claim 1 recites modifying the protected data “so that the modified portion of the data is independent of the patient information”. Examples of this include replacing the data with a predetermined character (such as an “X”) or deleting the data. This is fundamentally different from the Sweeney patent and the Scrub system, both in the process of modifying the data and the reaction to the modified data by a potential viewer. Specifically, the intent of Sweeney patent and Scrub system is for the modified data to have some basis in the original data. In this way, the potential viewer may tie the modified data to the original data. For example, the Sweeney patent teaches that a specific person’s name is always replaced with the same name, such as “Bill Jones” is replaced with “John Smith.” In this way, every time a viewer sees “John Smith,” the user is aware that it is associated with one specific user. In contrast, claim 1 recites a modification of the data so that the data is independent of the data. In this way, the viewer has much greater difficulty in tying the modified data to the original data. In the example given, a name, such as “Bill Jones” may be replaced with “X” characters, so that the viewer is unable to determine that it is associated with a specific user. This additional level of abstraction for the protected data is markedly different from the teachings of the Sweeney patent and the Scrub system. For at least this reason, claim 1 and the claims that depend thereon are patentable over the cited art.

Claim 19 recites computer-based system for monitoring patient information in a medical records system that includes “modifying the portion of the data stream so that the modified portion of the data stream is independent of the patient information if the portion of the data stream comprises patient information.” As discussed above, the Sweeney patent and the Scrub system fail to teach or suggest modification of the data to be independent of the patient information. For at least this reason, claim 19 and the claims that depend thereon are patentable over the cited art.

Claim 27 recites computer-based system for monitoring patient information in a medical records system that includes “modifying the portion of data stream if it comprises patient information so that the modified portion of the data stream is independent of the patient information.” As discussed above, the Sweeney patent and the Scrub system fail to teach or suggest modification of the data to be independent of the patient information. For at least this reason, claim 27 and the claims that depend thereon are patentable over the cited art.

### **CONCLUSION**

Applicants respectfully submit that all of the pending claims are in condition for allowance and seek early allowance thereof.

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